Radnor Lake State Park and Natural Area
Strategic Management Plan

2023 – 2033

TENNESSEE
State Parks

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Park Purpose, History and Description

INSERT PURPOSE, HISTORY and DESCRIPTION HERE. This can be taken from previous Management Plans. 1-2 paragraphs at most.

Radnor Lake State Park is a 1,368-acre park and is protected as a Class II Natural Area. It is unique due to the abundance of wildlife viewing opportunities, environmental education programs, hiking opportunities, and its location in an urban area. The park is day-use only and the 7.75-miles of trail are strictly used for hiking, photography, and wildlife observation. Saved from development in the early 1970's after originally being created to provide water for the L& N Railroad in the early 1900's Radnor Lake's mission focus incudes "safe, unique hiking and wildlife observation opportunities" for visitors as it is a sanctuary of diversity-balance that have found a refuge from the encroaching development.

Goals, Objectives, and Action Plans

THE RESOURCES: Exemplary Natural and Cultural Stewardship

Goal: Tennessee State Parks will be nationally recognized for exemplary stewardship of natural and cultural resources.

Objective - *More and better stewards:* Increase internal and external stewards who share Tennessee State Parks core values and can contribute to the State Parks mission to preserve, protect, and share Tennessee's natural and cultural resources.

Action Plan: Three actions to achieve objectives of more and better stewards would be as follows:

 1. Increase public-private partnerships to leverage funding 3 to 1 from state dollars to private sector dollars that support Radnor Lake's Natural and Cultural Stewardship goals that are part of mission focus at Radnor Lake State Natural Area.

2. Increase on-site interpretive programming at Radnor Lake State Park (RLSP) that specifically engage local community, Tennessee based companies, non-profits, higher education partners and foundations based in Tennessee as part of Tennessee brand promise of Natural and Cultural Stewardship.

3. Provide additional resources, 3- higher salary pays, external professional development and professional incentives for Radnor Lake's park staff who achieve set department stewardship goals as part of their mission, daily operations, interpretive programming, outreach programs and/or focus of operations with efficient ways to illustrate measurables on the ground to promote success of public-private partnerships outside job duties.

Objective - *Better resource management practices*: Identify, manage, and restore unique natural and cultural resources for generations to come.

Action Plan: Three actions to achieve objectives of better resource management practices would be as follows:

1. Develop resource management plans specific to RLSP that address preservation, restoration, and public outreach programming on the ground for professional resource management practices at RLSP.

2. Apply professional, standard, statewide goals for trail development to RLSP trails, resource management prioritization for rare/sensitive species, natural/cultural resource inventories, streams/waterways, and land acquisitions to RLSP.

> **Objective:** *Better data and technology*: Leverage data and technology to help inform and guide decisions on natural and cultural resources stewardship.

> Action Plan: Three actions to achieve objectives of better data and technology would be as follows:

> 1. Provide high-speed internet and wireless internet to every public facility or public use at RLSP.
> 2. Inventory existing natural, cultural, and historical assets at RLSP.

THE VISITOR: Welcoming and Inviting to All

Goal: Tennessee State Parks will be the most accessible, welcoming, and inviting system of parks that enriches Tennesseans and visitors through excellent interpretation, education, and resource-based recreation.

> **Objective:** *accessible, welcoming, and inviting to all:* create quality and varied programs of interpretation, recreation, and outreach so that all audiences feel welcome and invited.

Action Plan: Five actions to achieve objectives of accessible, welcoming, and inviting to all would be as follows:

1. Hire/create a position for visitors with special needs to create a new professional standard for Tennessee to lead the nation in engaging high quality programming and experiences in our state natural areas and state parks with tangible goals outlined by park managers across the state annually.

2. Hire/create a diversity recruiter for Tennessee State Parks/State Natural Areas to work, recruit and cultivate professional avenues for minority inclusion into our workforce with tangible recruiting goals outlined by park managers across the state annually.

3. Increase pay, professional training, education benefits and professional development for non-traditional state park/state natural area front line positions in the field.

4. Partner with non-for-profit visitor with special needs institutions near RLSP to get external assessment of Visitors with Special Needs accessibility, welcoming and inviting strategies and implementation training and facilities improvements.

5. Partner with non-for-profit visitor with special needs institutions in the RLSP area to create an accessibility strike team to make recommendations to RLSP to help evaluate and implement accessibility, welcoming and inviting strategies for inclusion at the park.

> **Objective***: high quality programming*: develop and support mission-based and resource-relevant programs to engage visitors, empower staff, and develop community wellbeing.

Action Plan: Six actions to achieve objectives of high-quality programming would be as follows: 1. Create a definition, professional standard for Tennessee State Parks on what is high quality programming.

2. Create and provide increased pay incentives, levels of Tennessee State Parks Professional Programming Certifications, mission focused programming professional external training and advanced educational

benefits for front line positions providing these high-quality interpretive programming opportunities to the public.

3. Recognize, reward, and promote front line field personnel who are doing these high-quality interpretive programs daily/weekly/monthly in the field for visitors.

4. Require any staff in positions of IPE Division to do weekly interpretive programming for the public in areas not served by our 57 state parks and 84 state natural areas.

5. Training for high quality programming should be done by certified, professionals in the field who do interpretive programming for the public on a regular basis.

6. Partner with non-for-profit visitor with special needs institutions across Tennessee to get external assessment of Visitors with Special Needs accessibility, interpretive programming recommendations for welcoming and inviting strategies and implementation training and facilities improvements.

> **Objective:** *resource-based outdoor recreation:* provide resource-based outdoor recreation opportunities that ensure representation of Tennessee's natural, scenic, and cultural resources.

Action Plan: Two actions to achieve objectives of resource-based recreation at RLSP would be as follows:

1. Create a definition, professional standard for Tennessee State Parks on what is resource-based outdoor recreation and professional standards.

2. Recognize, reward, and promote front line field personnel at RLSP who are implementing resource-based outdoor recreation programs at RLSP.

THE AMENITIES: Well-Maintained Facilities and Amenities

Goal: Tennessee State Parks will be well maintained with facilities and amenities that delight visitors and make Tennesseans proud.

> **Objective:** *Improve maintenance*: Improve overall maintenance and upkeep of all park facilities and amenities that contribute to meaningful visitor experiences.

Action Plan: Three actions to achieve objectives of well-maintained facilities would be as follows:

1. Update and complete RLSP's backlog of deferred maintenance projects. (Are there any? None were listed in the table later in this report)

2. Fund preventive maintenance needs such as termite treatments, paving sealing, etc.….. at RLSP.

3. Provide more flexibility at RLSP's park management level for smaller maintenance and repairs. re: Statewide Contract restrictions for high-not lowest price maintenance on facility HVAC units, pest control for more efficient use of state dollars.

> **Objective:** *Better Park accessibility*: ensure all visitors have opportunities for meaningful experiences in every Tennessee State Park.

Action Plan: Five actions steps to achieve better park accessibility for all 6.8 million Tennesseans:

1. Partner with non-for-profit visitor with special needs institutions in the RLSP area to create an accessibility strike team to make recommendations to RLSP to help evaluate and implement accessibility, welcoming and inviting strategies for inclusion at the park.

2. Require and provide visitors with special needs sensitivity training for RLSP's staff.

3. Create and implement Interpretive Programs for Visitors with Special Needs at RLSP.

4. Ensure RLSP trails and facilities are Wheelchair Friendly.

5. Market RLSP's programs and visitation for Visitors with Special Needs commercials that show RLSP is welcoming, inviting for full inclusion for better park accessibility at the park.

> **Objective:** *Quality and welcoming facilities and amenities*: provide high-quality and well-planned facilities and amenities that enrich the visitor experience.
>
> Action Plan: Five actions steps to achieve better park accessibility at RLSP:

1. Provide organized, professional, uniform, effective and welcoming information signage throughout the park consistent with brand promise standards.
2. Offer and expand recycling opportunities for visitors throughout the park and promotion of TSP Go Green sustainability efforts.
3. Offer Wi-Fi in all park's public facilities.
4. Minimize the footprint and visual impact of structures in the natural area consistent with our viewshed protection efforts.
5. Work to make improvements throughout the park/natural area that are professional, uniform, effective and welcoming to all visitors with an emphasis on visitors with special needs to achieve inclusion goals (welcoming & inviting).

THE OPERATIONS: Operational Excellence

Goal: Tennessee State Parks will be a national model for operational excellence in a state park system.

> **Objective:** *Support and empower our people*: support and empower our workforce by creating a caring environment that encourages professional growth and great customer service.

Action Plan: Three actions to achieve objectives to support and empower our people would be as follows:

1. Provide a safe work environment at RLSP.

2. Provide professional growth opportunities to RLSP staff and reward them financially for doing so.

3. Reward RLSP staff for individual high performance, value for years of service and recognize employees for working above/beyond.

> **Objective:** *Efficient and effective operations*: provide efficient, effective, and fiscally responsible service to Tennesseans and our visitors.

Action Plan: Six actions to achieve objectives of efficient and effective operations would be as follows:

1. Provide ample parking for visitors and/or parking options at RLSP.

2. Provide coordinated ride share and public transportation options for visitors to RLSP from downtown Nashville and Brentwood.

3. Expand EV parking at RLSP to 10-20% of public parking at visitor center and future parking areas.

4. Provide high speed wireless internet across RLSP.

5. Promote, advertise, and install signage for Visitors with special needs at RLSP.

6. Reevaluate, recalibrate and/or remove any reporting administrative deadlines/reports that hinder RLSP's front line field staff from serving public each day.

Park Overview

Site Fact Sheet

Park Name	Radnor Lake State Park and State Natural Area
Site Manager	Steve Ward
Area Manager	Ryan Forbes
Park acreage	1,380
Total number of visitors (FY 2022)	1,894,178 (note: 200,000+ annual bike, jogger and walk-ins estimated not on traffic counter data)
Total expenses before CO (FY 2022)	369,077
Total revenues (FY 2022)	50,717
Retail self-sufficiency %[1]	126%
Park self-sufficiency %	4.83
Average expense per visitor (FY 2022)	0.19
Average revenue per visitor (FY 2022)	0.03
Gross profit or loss	-0.16
Total full-time available positions / filled	8
Total part-time available positions / filled	2
Primary feeder markets	Nashville/Brentwood; Franklin; Davidson and Williamson Counties
Primary reasons people visit	Hiking and wildlife observation
Opportunities for improvement	1. Parking. 2. Complete land acquisition plan for trails, connectivity, high quality experiences and to keep it unspoiled for next generations. 3. Updated facilities and infrastructure.

Key Attractions

The amenities or features listed below are those that seem to be most popular for visitors.
- Walter Criley Visitor Center
- Radnor Lake-85 acres
- 7+ miles of trails including closed to vehicle portion of Otter Creek Road beside lake.
- Barbara J. Mapp Aviary Education Center

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[1] Based on **T.C.A. 11-3-305, Self-sufficiency of revenue-generating facilities**

- Historic Valve House Trail.

Site and Operations Assessment

This site and operations assessment is a culmination of analyses and findings from a review of the condition of facilities, infrastructure, and operations at Radnor Lake State Park. The findings and observations are not intended to be an exhaustive review of all issues present but provide a basic understanding of the predominant issues that contribute to the site's current operating conditions. The assessment includes the following:

1. Site and Facilities Assessment
2. Operational Assessment
3. Financial Assessment

Site and Facility Assessment

Methodology

Facility and asset conditions are rated using a differential scale of excellent, good, fair, or poor. Descriptions of conditions that are attributed to each of these findings are also provided.

Scale of Conditions	
Rating	General Description
Excellent	Facilities/amenities are in 'excellent' condition when they show little or no maintenance or repair problems. Facilities do not feature any major design or operational issues or flaws that contribute to diminished use or increased maintenance or upkeep. Facilities are easy to clean and maintain in order to place them back into public use and the users perceive them to be in excellent shape.
Good	Facilities/amenities are in 'good' condition when they show only minor maintenance or repair problems. Most maintenance issues with these facilities typically appear to be the result of age and/or heavy use. Facilities may only feature minor design or operational issues that contribute to diminished use or increased maintenance or upkeep. Facilities are moderately easy to clean and maintain in order to place them back into service and the users perceive them to be adequate for their use, but probably not in excellent shape.
Fair	Facilities/amenities are in 'fair' condition when they show significant maintenance or repair problems. Facilities generally exhibit ongoing maintenance issues that appear to be the result of age, heavy use, or design or operational flaws. Some maintenance and repair needs may compound their fair condition by being deferred because of budget and/or resource limitations. Facilities require more effort to clean and maintain before placing them back into service and the users may perceive them as being less than adequate for their use and in a state of deterioration. The facility or structure may need of major repair or replacement.
Poor	Facilities/amenities are in 'poor' condition when they show significant, on-going maintenance or repair problems that ultimately may result in suspended use for repair/replacement. Maintenance and repair issues are possibly the result of poor maintenance and clearly the result of age, heavy use, or design or operational flaws. Problems with the facilities are often compounded over time due to consistently deferred maintenance and repair because of budget and/or resource limitations. Facilities may feature major design or operational issues that contribute to diminished use or increased maintenance or upkeep. Facilities require excessive effort to clean and maintain before placing them back into service and the users often perceive them as being inadequate for their use and in a state of serious deterioration. The facility or structure may need of major repair or replacement.

Facility Inventory and Assessment

The table below is an inventory of facilities and amenities at _Radnor Lake State Park, and provides the assessed condition of each as reviewed in May 2023.

Walter Criley Visitor center	1	GOOD
Barbara J Mapp Aviary Education Center	1	GOOD
Historic Valve House	1	EXCELLENT
Caretaker Residence	1	GOOD
Hall Barn	1	GOOD
Hideaway Barn	1	GOOD
Maintenance Shop	1	FAIR
Hall Farm Ranger Residence	1	GOOD
Park Manager Residence	1	GOOD
Hideaway Ranger Residence	1	GOOD
East Parking Area Restrooms	1	FAIR
Sauna building	1	POOR-DEMO NEEDED
Hall Farm Family Residence	1	POOR-DEMO NEEDED
Maintenance Restrooms	1	POOR-DEMO NEEDED

Trail Inventory and Assessment

Trail Name	Mileage	Condition
Access Trail	0.24	good
Dam Walkway	0.22	good
Ganier Ridge Trail	1.61	fair
Lake Trail	1.38	excellent
South Cove Trail	1.37	fair
South Lake Trail	1.32	excellent
Spillway Trail	0.31	excellent
Otter Creek Road (east lot-west lot)	1.2 miles	poor
Valve House Trail	0.17	good
Grand Total	**7.83**	

Radnor Lake has eight different sections of trail in the park and is considered our "best facility". The trails were designed in 1973, were not designed to National Trail Standard at that time and are utilized by over 2M visitors annually. The only new trail to date added in the past 50 years was the Historic Valve House Trail which was added in 2013. The Historic Valve House Trail was a unique addition as it was the first trail designed to highlight the history of Radnor Lake's origin when created by the L & N Railroad with the main goal of interpretation of the past landscape.

All the trails include in a wide range of flora and fauna with limited-passive recreation opportunities to support our mission of "unique-safe hiking and wildlife opportunities". Rules and regulations are posted and enforced to support these passive recreation opportunities such as birding, hiking, photography and plein air painting. Two of our trails, South Cove and Ganier Ridge reach elevations over 1050 feet and

both are considered strenuous. All other trails are considered easy or moderate. The South Cove and South Lake Trails are high quality wildflower destination trails and provide the highest diversity of wildflowers. The Spillway, Dam Walkway and Lake Trail to the Middle Bridge are considered the one of the best "warbler" trails in the Southeast and a highly focused birding trail for birders during migration season. Otter Creek Road between the East and West Parking Areas is a 1.2-mile abandoned roadway that was closed in 2004 for safety from traffic, offering the best and most popular hike for visitors due to its proximity to the lake and ease to hike. It is in deteriorating condition and currently has a $900,000 capital improvement project slated for Summer 2024 to stabilize the roadway, repair damage from the 2010 flood event and dramatically improve wheelchair accessibility access. The management goal of all our trails is to make improvements where needed with the guidance of National Trail Standards.

New Assets Needed

List new assets and amenities that would fall under capital expenditures that are needed to improve visitor experience and operational efficiency.

New Asset & Amenities	Description
Parking Area and Ranger Station	Harris Ridge Trail Project: Construct new 100 vehicle parking area with 20 EV spaces and ranger station to relieve current congestion, needed additional parking and improve customer service for hikers.
200+ acres of new acreage	Key parcels of land identified by park management based on priority system established to protect Radnor Lake ecosystem and park visitor experience forever. This includes watershed, viewshed, future trail opportunities and unique flora/fauna.
West Parking Area ADA Restroom	New restroom for west parking area designed on visitors w/special needs
Visitor Center Expansion	Screened porch, new displays, seating area focused on visitors with special needs.

Prioritized Facility Needs

Based on the facility inventory and assessment, these prioritized needs have been identified.

Facility Need	Priority Assignment
Walter Criley Visitor Center	High
Caretaker Residence	High
Barbara J. Mapp Aviary Education Center	High
East Parking Area Restrooms	High
Hall Barn	High
Maintenance Shop	Medium
Additional Ranger Residence #1	High
Additional Ranger Residence #2	High

Operational Assessment

The Operational Assessment includes:

1. An inventory and classification of programs and services being provided at the site,
2. A review of staffing at the site,
3. A review of concessionaires and partners operating at the site,
4. Visitation and customer satisfaction, and
5. Professional development and training.

Inventory and Classification of Programs and Services

Programs and services are classified into one of three major categories:

1) Core or Essential Services.

2) Important Services; and

3) Value added or Visitor Supported Services.

Functions of the site are classified into these categories based in part on the mission and public mandates for both the site and the agency. For the programs and services in each of these categories, there are financial performance expectations that will define how services are funded and evaluated.

CATEGORY 1 – CORE SERVICES *[Largely supported by public subsidies]*

Core programs, services and facilities are those the agency <u>must</u> provide and/or are essential in order to capably govern and meet statutory requirements. The failure of the agency to provide Category 1 services at adequate levels could result in significant negative consequences for the public and the resources under protection. The criteria for programs or services to be classified as core or essential are:

- The services are mandated by the agency's law or charter or are contractually obligated by agreement to provide the services.
- The services are essential to protecting and supporting the public's health and safety.
- The services protect and maintain valuable assets and infrastructure.
- The services would generally and reasonably be expected and supported by residents, businesses, customers, and partners.
- The services are those that cannot or should not be provided by the private sector.
- The services provide a sound investment of public funds.

The following programs and services offered at Radnor Lake State Park have been identified as **core services**:

- Personnel-adequate staffing to serve 2+ million visitors annually and protect the natural resources within the natural area.
- State Park Rangers to provide law enforcement and medical response.
- Utilities to service the facilities and in compliance with all laws.
- Parking adequate for 2+ million visitors annually.
- Maintenance staff to sustain facilities efficiently and safely.
- Staff residences on site for 24-hour emergency response and protection of state resources.

CATEGORY 2 – IMPORTANT SERVICES *[Supported by a balance of revenues and public subsidy]*

Important programs, services and facilities are those the agency should provide, and are important to governing and effectively serving residents, businesses, customers, and partners. Providing Category 2 services expands or enhances the agency's ability to provide and sustain its core services.   The criteria for programs or services to be classified as important are:

- The services expand, enhance or support identified core services.
- The services are broadly supported and utilized by the community, and are considered an appropriate, important, and valuable public good. Public support may be conditional upon the manner by which the services are paid for or funded.
- The services generate income or revenue that offsets some or all the operating cost and/or are deemed to provide economic, social, or environmental outcomes or results.

The following programs and services offered at Radnor Lake State Park have been identified as **important services**:

- Trails-High quality trail system-safe hiking experiences.
- Special Events relative to environmental protection for public education.
- Fully staffed and accessible Barbara J. Mapp Aviary Education Center for interpretation of natural environment.
- Land acquisition-200 acres-Preservation and expansion of the natural area acres for future generations.
- Interpretation of park resources.
- Walter Criley Visitor Center
- East Parking Lot and restrooms.
- Providing opportunities for community partnerships.

CATEGORY 3 – VISITOR SUPPORTED SERVICES *[Almost exclusively supported by earned revenue]*

Visitor supported programs, services and facilities are those discretionary services that the agency may provide when additional funding or revenue exists to offset the cost of providing those services. Category 3 services provide added value above and beyond what is required or expected. The criteria for programs or services to be classified as visitor supported are:

- The services expand, enhance or support Core Services, Important Services, and the quality of life of the visitors, community, or stakeholders.
- The services are supported, valued, and well utilized and provide an appropriate and valuable public benefit.
- The services generate income or funding from sponsorships, grants, user fees or other sources that offset some or all of their cost and/or provides a meaningful return on investment.
- The Services can possibly be provided through outsourcing or use of concessionaires, providing opportunities for community enterprise or services that may not otherwise be provided by the agency.

The following programs and services offered at Radnor Lake State Park have been identified as **visitor supported services**:

- Volunteer Program.

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- Barbara J. Mapp Aviary Education Center and protection of birds of prey.
- Public-private partnership opportunities to maximize non-state dollars funding.
- Programs-high quality interpretive programming & passive recreational opportunities for all.
- Special events focused on environmental protection.

Personnel / Staffing Review

Personnel and staffing at Radnor Lake State Park represent the largest area of budgetary expense at an average of 66.9% of the total operating budget each year for the last three complete years, which is slightly above the target of labor costs not exceeding 65% of total operating expenditures. The tables below and on the following page provide a basic review of the current staffing at the site.

Full Time Equivalent Employees

Position / Title	Quantity (FTE)	Compensation Total
Park Manager 1	1	*
Administrative Asst. 1	1	$45,480
Clerk 2	1	$28,944
Park Ranger 2	5	*
TOTAL	8	$407,712

Law enforcement compensation confidential by TN law.

Part Time Employees

Position / Title	Quantity	Compensation Total
Seasonal Job Share-Laborer	1	$27,495
SIR Position	1	$6,768
TOTAL	2	$34,263

Labor Support

Labor Support	Annual Hours
Volunteers	5,000
Community Service Workers	200
Engineering and Construction Crews	120
Resource Management Crews	1,400
Other:_____	
TOTAL	6,720

Total Labor Compensation Expense

Labor Type	Labor Expense
Full Time Equivalent Employees	$407,712
Part Time Employees	$34,263
TOTAL Annual Labor Expense	$441,975

Additional Future Positions Needed

Position / Title	Quantity	FTE or PT	Year Needed	Justification
State Ornithologist Position	1	FTE	2024	Best birding site and most visited in
BJMAEC Interpretive Specialist	1	FTE	2026	Visitors with special needs focus
Maintenance Position	1	FTE	2026	Harris Ridge Trail and Aviary Center
Gift Shop Staff	1	FTE	2025	Increased visitation and proposed expansion of Gift shop
TOTAL	**4**			

Customer Service

Platform / Site	Year	Customer Satisfaction Level
Yelp	2023	4.5
TripAdvisor	2023	4.8
Google	2023	5.0

Professional Development and Training

The following professional development and training opportunities are being explored and planned for the staff and volunteers at this park:

- Trail Master Certification
- S-212 Chainsaw Felling Certification
- Canoe Instructor Certification
- Swiftwater Rescue Certification
- External Birds of Prey Care and Handling Certification
- Visitors who are Deaf Training
- Mental Illness Prevention and Response to Mental Health Crisis
- Boundary Survey and Marking
- Master Birder Certification
- Visitors with special needs sensitivity training
- Machine Trail Master Certification
- Spanish and Sign Language Training
- Routine law enforcement training
- Routine management training

Summary of Key Recommendations

Please provide short-term, mid-term, and long-term recommendations for addressing operational issues at the park and improving overall park performance.

Short Term Recommendations (Less than 1 year)

1. **Site and Facilities**

   a. Entire Park-High Speed Internet
   b. Paving of Otter Creek Road for wheelchair friendly experience and safety of park visitors
   c. Addition of 3rd automated wheelchair for visitors to reserve/use for free

2. **Operations and Staffing**

   a. Salary adjustment or reclassification for AA1 position reflective of her role.
   b. Obtain second seasonal job-share position for department diversity inclusion goals.
   c. Hire 2nd Adult with special needs into seasonal job-share position in partnership with Rochelle Center.
   d. Add State Park Ranger Position for Harris Ridge Trail Project.

3. **Customer Service / Visitor Experience**

   a. Ensure that all park staff members complete required customer service training.
   b. Ensure that all park staff conducting interpretive programs complete CIG Training Certification.
   c. Promote-expand our automated wheelchair reservation program for visitors.
   d. Promote-add Wi-Fi at all public facilities for staff and park visitors.

Mid Term Recommendations (2-5 years)

1. **Site and Facilities**

   a. 100 vehicle parking area at Harris Ridge Trail w/20% EV Charging Stations for new 3-mile trail opening.
   b. New automated gated driveway wheelchair friendly entrance for Barbara J. Mapp Aviary Education Center w/Eagle Statue GPS location for Visitors Center Bureau Designation for Nashville.
   c. Restoration and historic registry designation for Historic Caretaker Residence with Tennessee State Parks/State Natural Areas first designated wheelchair friendly birding path.

2. **Operations and Staffing**

   a. Interpretive Specialist Position (non-commissioned) or Park Ranger 2 Position for historical programming focus, archives, and engagement of historical preservation w/local community.
   b. State Ornithologist Position to provide weekly birding hikes for public, resource management habitat enhancement, land acquisition expansion of critical habitats and visitors with special needs focus for underserved communities birding initiative.
   c. Maintenance position for operations support and facility upkeep.

3. **Customer Service / Visitor Experience**

    a. With the addition of the State Ornithologist Position, Interpretive Specialist Position this will improve the quality and frequency of quality interpretive opportunities for park visitors.

    b. With the addition of the Maintenance position, this will make operations more efficient and improve the visitor experience through a more professional and timely response to maintenance needs at the park.

Long Term Recommendations (5+ years)

1. **Site and Facilities**

    a. Purchase of church and surrounding acreage at Granny White/Otter Creek for expansion of west parking area.

    b. 8-10' sidewalk path designed and installed exceeding ADA requirements that connects Granny White Pike to the Walter Criley Visitor Center to the Lake Trail removing visitors from impeding traffic and/or improving safety of visitors accessing the west entrance.

    c. Purchase of adjoining residence on Otter Creek Road for Park Residence visible at west entrance for response for law enforcement and medical response.

2. **Operations and Staffing**

    a. Additional park ranger 2 position (2nd) for visitation increase from Harris Ridge Trail Project and trail maintenance.

3. **Customer Service / Visitor Experience**

    a. Park residence at west entrance will improve law enforcement and medical response for visitors utilizing our 10+ miles of trails.

    b. With the addition of the park ranger 2 position, this will help meet the visitation demands of Harris Ridge Trail exceeding 500,000 visitors per year and help maintain our trail system to National Trail Standard utilizing volunteers.

Resource Management Plan

A resource management plan is a specific statement of the objectives you have for your land and natural resources, as well as any significant cultural and historic resources stewarded by the state park. This includes a defined series of priorities and activities that will take place in order to meet those objectives. This can include future potential land acquisitions or divestitures that are necessary to meet the park's resource management goals and objectives.

Statement: Protection of the watershed, viewshed and ecosystem of Radnor Lake is our primary focus for the management efforts at Radnor Lake State Natural Area and State Park. The completion of our Land Acquisition Plan and effective/active resource management for the establishment of native grasslands, protection of the water quality, preservation of historic structures/elements, protection of sensitive plant species and the last remaining habitats available for species such as American Bald Eagles is paramount for the long-term successful management of this healthy, vibrant and unique ecosystem preserved forever under the protection of the State Natural Areas Preservation Act of 1971.

The contents of this resource management plan are as follows:

1. Resource Management Objectives
2. Resource Inventory and Assessment
3. Management Strategies
4. Priority Actions
5. Supplemental Information

Resource Management Objectives

Goal: Tennessee State Parks will be nationally recognized for exemplary stewardship of natural and cultural resources.

Objective - *More and better stewards:* Increase internal and external stewards who share Tennessee State Parks core values and can contribute to the State Parks mission to steward Tennessee's natural and cultural resources.

Objective - *Better resource management practices*: Identify, manage, and restore unique natural and cultural resources for generations to come.

Objective: *Better data and technology*: Leverage data and technology to help inform and guide decisions on natural and cultural resources stewardship.

Aligned with these objectives are specific strategies to achieve the desired outcomes for the natural, cultural, and historic resources of this park.

Strategies

1. The acquisition of land at Radnor Lake State Natural Area is chosen by four primary criteria:
Watershed-Viewshed
Impact upon sensitive wildlife and unique plant populations
Native Grasslands Initiative-Monarch Butterfly, Ground Nesting Bird Habitat and American Bald Eagle Habitat.
Connectivity, future trail opportunities, and long-term management of visitation.

If we are successful in acquiring these last critical remaining parcels, it will enable us to place all of them under the protection of the Natural Areas Preservation Act of 1971 and managed as part of Radnor Lake State Natural Area forever.

2. Invasive-exotic plant removal annually with combination of public-private funds.

3. Prescribed burning every 3-5 years in partnership with TDNA, TDF, FORL and TSP.

4. Historical and Cultural Resource Management Plan.

5. Interpretive Management Plan.

6. Radnor Lake Watershed Initiative Plan.

7. USFWS Bald Eagle Management Plan 2008.

8. USFWS Beaver Restoration Guidebook 2018

Resource Inventory and Assessment

The significant natural, cultural, and historic resources of the park requiring management are detailed below including a condition assessment rating for each. Condition assessments are selected from the following options based on what most describes the current condition of the resource:

1. **Excellent** – resource is in excellent condition; all potential threats to the integrity of the resource are currently managed and effectively mitigated.

2. **Good** – resource is generally in good condition and stable; threats to the integrity of the resource require regular management in order to mitigate.

3. **Fair** – resource is in stable condition but difficult to mitigate ongoing threats; additional management support is required.

4. **Poor** – resource is generally in poor condition with management support required to both improve existing conditions and address threats.

5. **Critical** – resource is highly threatened or deteriorated and requires immediate management prioritization.

Significant Park Resources	Quantity	Current Conditions	Notes
Historic Structures	3	Poor	The structures are in fair condition but need restoration funding and contract work in near future with goal of National Historic Registry Status. This includes Hall Barn, Caretaker Residence, and valve inside Historic Valve House Structure.

Historic Sites	20+	Good	Thanks to historic research during acquisition process with Dr. Doug Heffington & students, sites have been evaluated and documented well the past 22 years. Park Interpretive Specialist John Froeschauer did extensive history document and other archival work to support this preservation effort prior to 1994. Most significant new site is Inner Urban Railbed on Harris 3 Tract and over 40 elements documented on hillside above this site including a 17 ft limestone cistern with is control point for new Harris Ridge Trail Project/future trail highlight.
Upland hardwood forest	1,330 acres	Good	The forests are healthy second growth with 1,200 acres removed of invasive exotics in the past 22 years however in need of funding to complete removal from entire natural area into maintenance mode without reversal of substantial gains the past 20 years on invasive plant species.
Radnor Lake	85 acres Avg depth 14 feet	Good	Lake is in excellent condition with minor erosion issues along Otter Creek Road and canoe put in. Needs updated fish shock study (last 2001) and updated water quality sampling testing for comparison to 5-year study funded by FORL. Need to finish land acquisition priorities within the watershed and improve infrastructure such as septic tank conversion to sewer to eliminate point pollutants (nitrates) within the watershed.
Native Grasslands	50+ acres	Excellent	Few exotic-invasive plants and increase of documented plant and wildlife species over past 10 years due to this management focus.

Resource			
American Bald Eagle Nest	1	Good	First documented nest ever within the park/natural area in January 2022, 4th nest registered in Davidson County and closest to State Capitol at the time of registering the nest w/TWRA. Successful with 1 of 2 eaglets surviving the first year due to staff focused efforts of renesting eaglet after nest collapse on May 18, 2022. Second year two eaglets fledged successfully. Park management created Eagle Protection Area with state leadership support, Friends of Radnor Lake financial support, TWRA and USFWS Support. Conservation milestone for park/natural area in our 50th year of existence and probably most significant example of resource management-land acquisition plan over past 50 years effectiveness thru public-private partnerships w/landowners.
Wetlands	10 acres	Good	Expanded wetlands past 10 years thanks to the closure of Otter Creek Road in 2003-2004, $400,000 trail relocation based on beaver research with Penn State University for the Lake Trail East Trailhead and focused management of TVA-Piedmont easement behind the lagoon area in conjunction with native grasslands initiative.

Management Strategies

The management strategies outlined below are directly correlated to the resources identified previously in the *Resource Inventory and Assessment* section immediately above. These are general and overall management recommendations for each resource from which priority actions will be determined. Each resource has both a "Public Use" management strategy (which could include limited or no public access, or managed access with infrastructure and regulation) and a "General Management" strategy.

The priority assignments reflect the highest resource management priorities of the park over the next 1-5 years (High Priority) and 6-10 years (Moderate Priority)

Resource	Management Recommendations	Priority
Radnor Lake & Wetlands	**Public Use:** Managed access limited to trails around lake and observation decks. No shore access allowed due to impact upon wildlife observation and sensitive plant communities surround these areas. Ranger led canoe floats during non-	**High**

	migration months paused due to establishment of first American bald eagle nest on point of lake. **General Management:** The health of the water quality within the natural area is the key indicator of the health of the Radnor Lake ecosystem which all else exist upon. hardwood forests are managed for improvement of overall forest health which include ongoing invasive species management, erosion mitigation in areas of steep topography, and understory management through prescribed burns. Pursue collaboration with TN Division of Forestry to assist with overall forest management.	
Historic Structures	**Public Use:** Managed access limited to trails/roads unless under guidance of ranger. **General Management:** Managed based on preservation of structures, visitor safety and funding to preserve accurately for national historic registry status.	**High**
Native Grasslands	**Public Use:** Access limited to trails/road unless under guidance of ranger staff (example birding hikes or research). **General Management:** Managed to be invasive-exotic plant free and in successional state thru prescribed burning. Focused habitat improvement for less seen or absent species returning to the natural area such as Monarch Butterflies, ground nesting birds such as Meadowlarks, Bald Eagle, and Eaglet habitat for fledging, etc.	**High**
American Bald Eagle Nest	**Public Use:** Access for viewing limited to hiking trails/roads per American Bald Eagle & Golden Eagle Protection Act of 1940. No disturbance of any kind including drones allowed. **General Management:** Managed in accordance with USFWS Bald Eagle Management Guidelines (2008) and State Natural Areas Preservation Act of 1971 Management Guidelines.	**High**
Upland hardwood forest	**Public Use:** Managed access limited to trails/roads. **General Management:** Removal of invasive-exotic plants and prescribed burning management needs continued progress to achieve excellent status.	**Moderate**

Land Management Strategies

In some cases, strategic land acquisitions or divestitures are necessary to meet the overall resource management goals and objectives of the park. This can include opportunities to address buffers, watersheds, viewsheds, inholdings, and adjacent properties. The table below details **general strategies** for land management. Timelines refer to Short Term (1-3 years), Mid Term (4-6 years), and Long Term (7-10 years).

Land Management Strategy	Timeline
Acquire 9 acres on southern boundary with LWCF Matching Funds	Short Term
Acquire 2 Ranger Residences with combination of SLAF and FORL Funds	Mid Term
Acquire 1 acre Magill Tract with private funds via Friends of Radnor Lake	Short Term
Acquire 6 acres on Eastern Boundary (Enoch Tract) with SLAF and FORL Funds	Short-Mid Term
Acquire 11 acres on Southeastern Boundary adjoining Harris Ridge Trail Project with SLAF, FORL and Heritage Trust Funds.	Short Term

Supplemental Information

The land acquisition plan at Radnor Lake is the most pressing, urgent need of Radnor Lake State Park and State Natural Area. From it, all our future goals and completion of our mission can only be fulfilled with the continued success of our active land management acquisition of key parcels not owned by the State of Tennessee and essential to any future goals.

The Acquisition of land at Radnor Lake State Natural Area is chosen by four primary criteria in order of priority:

1.
   1. Watershed-Viewshed
   2. Impact upon sensitive wildlife and unique plant populations
   3. Native Grasslands Initiative-Monarch Butterfly, Ground Nesting Bird Habitat and American Bald Eagle Habitat.
   4. Connectivity, future trail opportunities, and long-term management of visitation.

   If we are successful in acquiring these last critical remaining parcels, it will enable us to place all of them under the protection of the Natural Areas Preservation Act of 1971 and managed as part of Radnor Lake State Natural Area forever.

Interpretive Programming and Education Plan

The Interpretation, Programming, and Education planning is currently going through a planning process to further build out the process. This section only represents the very basic framework. As TSP moves forward with the future of Interpretive programming and education this section will likely be changed to accommodate those modifications.

Attached to this plan are the Interpretive Program Templates in fillable PDF forms.

To educate, interpret and promote the natural, historical, cultural and recreational features of Radnor Lake State Natural Area/Park through education, interpretation and promotion of what is a state natural area and why are they important to the citizens of Tennessee by stimulating the visitor's understanding, appreciation, and emotional connection with the rich features preserved in Radnor Lake State Natural Area, ultimately fostering conservation ethics and promotion of a dedicated park constituency.

Interpretation, Programming and Education Goals

Goal: Tennessee State Parks will be the most accessible, welcoming, and inviting system of parks that enriches Tennesseans and visitors through excellent interpretation, education, and resource-based recreation.

> **Objective:** *accessible, welcoming, and inviting to all:* create quality and varied programs of interpretation, recreation, and outreach so that all audiences feel welcome and invited.

> **Objective***: high quality programming*: develop and support mission-based and resource-relevant programs to engage visitors, empower staff, and develop community wellbeing.

> **Objective:** *resource-based outdoor recreation:* provide resource-based outdoor recreation opportunities that ensure representation of Tennessee's natural, scenic, and cultural resources.

Within these objectives are the following desired outcomes:

- Building stewards
- Ensuring Equity
- Provide the Highest Value
- Develop Resource Based Programming
- Support Staff

Strategic Programs and Services

The strategies detailed below with corresponding action plans are aligned with the Comprehensive Strategic Plan of Tennessee State Parks.

Strategy – Telling Full Stories: to identify and replicate best practices while establishing new methods for representing diverse, equitable, inclusive, and just dialogues.

Action Plan:

- Develop partnerships with underrepresented, misrepresented, and unrepresented communities in our Middle Tennessee.
- Partner with non-for-profit organizations for external funding and transportation solutions to achieve diversity inclusion goals for youth interpretive programming such as our Jr. Ranger Intern Program, First Hike Initiatives, and high-quality interpretive programming experiences such as the Barbara J. Mapp Aviary Education Center.
- Renew focus on new-first time visitor experiences such as beginner birding, moderate hiking, and other interpretive program opportunities to create opportunities for underrepresented, misrepresented, and unrepresented communities in Middle Tennessee.

Strategy – Interpretative Media: Connecting people to the resources of Tennessee State Parks with technology in ways that compliment and expand interpretation within and beyond the park, giving everyone access to becoming a park steward.

Action Plan:

- Use technology such as social media, virtual tours, and QR codes to make content about the resources in the park more accessible.
- Use iPhone apps such as picture this, merlin, etc.… and incorporate the use of those programs into ranger led interpretive programs to teach the visitor how they can easily expand their knowledge beyond what is offered in the park/natural area.

Strategy – Develop and maintain a portfolio of programs across multiple types of experiences:

A. Interpretation of natural, historic, and cultural resources

B. 3-5 unique experiences for all audiences

C. Varying intensity from self-guided to immersive experiences

D. Partnership opportunities for program delivery

E. Varying costs to the user from "free to fee" based on value of the benefit to the participant.

Action Plan:

- Develop a program outline for all the core programs presented at the park. Include programs meeting the criteria above.

Strategy – Develop and maintain diverse and varied resourced-based outdoor recreation opportunities across multiple types of experiences:

A. Managing recreational use with the stewardship needs of the resource.

B. Varying intensity from self-guided to guided experiences

C. Partnership opportunities for program delivery

D. Varying costs to the user from "free to fee" based on value of the benefit to the participant and impact to the resource.

Action Plan:

- Provide a variety of interpretive programs such as beginning birding programs led by park staff and other local birding organizations such as NTOS.
- Provide seasonal interpretive opportunities for special environmental days throughout the year that focus/highlight more than on passive recreation interest such as photography classes, night hikes, sunrise hikes, volunteer opportunities that include interpretive programming/education, etc.…

HELPFUL DEFINITIONS:

➢ Nonpersonal Interpretation: Interpretive media that do not require a person to deliver a message (i.e., exhibits, waysides, brochures, signs, magazines, books, etc.).

➢ Personal Interpretation: One person or persons proving interpretation to another person or persons.

➢ Interpretive Program: Activities, presentations, publications, audio-visual   media, signs, and exhibits that convey key heritage resource messages to audiences. (Adapted from US Fish & Wildlife Service

➢ Interpretation: a purposeful approach to communication that facilitates meaningful, relevant, and inclusive experiences that deepen understanding, broaden perspectives, and inspire engagement with the world around us.

Financial Pro Forma

Financial performance goals are a critical performance management tool of the Tennessee State Park System. While the financial performance of parks are managed more intently at the system level, individual parks are expected to recover a portion of their operating costs through the generation of earned revenues where appropriate and to contribute to the system goals. The majority of earned revenues at state parks are generated through facility usage (campsites, cabins, lodge rooms, rentable pavilions, etc.), the delivery of fee-based programs and services, equipment rental and usage, and retail sales. Other forms of revenue generation come from golf courses and restaurants where those amenities are present. That said, not all parks have the same ability to generate earned revenues because the availability of facilities or programs vary widely from one park to the next. The "recovery" of operational costs by earned revenues is referred to as "cost recovery". Operating costs beyond those supported by earned revenues represents the extent to which state funding support operations at each park.

The table below represents the overall park cost recovery for this specific park for the most recent fiscal year and forecast estimates for the upcoming five years. These estimates are based on projection estimates for known and foreseeable costs and recovery figures.

FINANICAL PERFORMANCE GOALS						
	Current Cost Recovery (2022)	Target Cost Recovery: FY 2023	Target Cost Recovery: FY 2024	Target Cost Recovery: FY: 2025	Target Cost Recovery: FY 2026	Target Cost Recovery: FY 2027
Park Overall	6.55%	5%	5.5%	5.75%	6%	6.25%